HOT AIR OVEN

Standard Operating Procedure

Prepared by,
Sandeep Kumbhar and Mehul C. Raval

NCPRE
**System Information:**
Instrument Provider: Gayatri Scientific, Mumbai.
Technical Details: 4KW, 230V (Single Phase)

**Training Procedure:**
1) Get approval from Guide.
2) Contact the System Owner.
3) One session for authorization on the tool.

**Safety & Precautions:**
- Maximum Temp. : 350°C.
- Ensure that the Exhaust blower is ON before starting the oven.
- Ensure the GN2 plant is UP.
- Ensure that temperature does not shoot higher than the set temperature.

**Procedure for starting the tool:**
1) Turn ON the Rota meter for GN\textsubscript{2} flow in the oven. Keep the flow around 2 slpm.
2) Switch ON the Mains of the Oven (On the wall).
3) Switch ON the fan.
4) Turn ON the mains (On the oven). The Red LED will glow means oven is ON.
5) Once the system is on you can set the required temperature on the PID Temperature controller as follows:
   - Press ‘SET’ once.
   - Press UP arrow \( \uparrow \) or DOWN arrow \( \downarrow \) to set the required temperature. The maximum temperature is 350°C.
   - Press ‘ENT’ to start the HEATING UP program.
   - The YELLOW LED will glow indicating the heater is ON.
6) Wait till the required temperature is reached.
Procedure for SHUTTING down the tool:

1) Once the system is on you can set the required temperature on the PID Temperature controller as follows:
   ➢ Press ‘SET’ once
   ➢ Use DOWN arrow ↓ to reduce the oven temperature to 25°C.
   ➢ Press ‘ENT’ to start ramp down program.
   ➢ The YELLOW LED will stop glowing indicating heater is OFF.

2) Make a log book entry.